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## No Honey from Tartary Buckwheat

## by J. Naghski

N the September 1951 issue of this journal, Walter Barth (1) presented an excellent write-up on the subject, "Will Buckwheat Make a Comeback?" One of the questions raised was whether tartary buckwheat could be a source of honey. It is believed that some of the observations made by the writer while growing this type may be pertinent to this question. In recent years when extensive plantings of tartary buckwheat have been made for the production of rutin, reports have come to the attention of the writer. that bees do not appear to be attracted to this variety. This was confirmed by observations made during studies on growing buckwheat for rutin production carried out by this Laboratory (\*\*). A search of the literature did not reveal any record of this behavior.

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Commercial production of rutin was stimulated by the finding of Griffith, Couch and Lindauer4 that the drug was beneficial in the treatment of spontaneous increased capillary fragility in man. Investigation of numerous plants showed that buckwheat was a promising domestic source of this glycoside2. The intensive studies made on the influence of agronomic factors on the rutin content of five varieties of buckwheat grown on different soil types, showed that the little known tartary buckwheat was a better source of rutin than the Japanese3.

During these experiments it was observed that bees were completely absent from the blooms of tartary (Fagopyrum tataricum and its tetraploid (F. tetratataricum) but worked intensely the blooms of the Japenese and Silverhull (varieties of F. esculentum). Bees visited the Emarginatum (F. emarginatum) only occasionally. These five types were grown on adjacent plots and the bees had equal opportunities to visit the blooms. Such observations were confirmed over the four year

period at six different locations in Pennsylvania (Clearfield, Susquehanna, Montgomery, Centre, Lancaster and Delaware counties). Furthermore, no bees were found working the tartary in 4 to 5 acre fields planted at four different times between June 1 and August 1, although they were numerous on the few volunteer plants of the Japanese type growing within these fields.

Unlike the common varieties, tartary and its tetraploid are selffertile. Since they do not require insect pollination the blooms either do not produce nectar or the nectar lacks sufficient sugar to attract bees.

## References

- Barth, Walter. Will buckwheat make a comeback? Amer. Bee Jour. 91, 368-369 (1951).
- Couch, J. F., Naghski, J. and Krewson, C. F. Buckwheat as a source of rutin. Science 103, 197-198 (1946).
- Science 103, 197-198 (1946).

  Couch, J. F., Naghski, J., White, J. W., Taylor, J. W., Sando, W. J., and Street, O. E. Tartary buckwheat as a source of rutin. Bur. Agr. & Ind. Chem., Eastern Regional Research Laboratory AIC-222. (February 1949) (Processed).

  Griffith, J. Q., Jr., Couch, J. F. and Lindauer, M. A. Effect of rutin on increased capillary fragility in man. Soc. Exp. Biol. and Med. Proc. 55, 228-229 (1944).